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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MORAN, MARJORIE A	

ART UNIT	PAPER NUMBER
1631	

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/846,758	LIU ET AL.	
	Examiner	Art Unit	
	Marjorie A. Moran	1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9, 11-21, and 23-25* is/are pending in the application.

4a) Of the above claim(s) *12-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11,15-21 and 23-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *5/31/06* .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

Claims 12-14 are again withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in a response filed 5/19/03.

An action on the merits of claims 1-9, 11, 15-21, and 23-25, as they read on the elected species of altered resistance to an herbicide, follows.

All rejections and objections not reiterated below are hereby withdrawn. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

Claims 1 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over BRIGGS et al. (IDS ref: US 6,300,542, filed 6/17/1994) in view of JOHNSON et al. (US 6,455,758, filed 7/13/99).

Claim 1 recites a method of multigenerational plant analysis and data management comprising generating an mutation in the genome of a T0 plant with an insertional mutagen and collecting T1 seed from the mutated plant; growing T1 plants from the seed under selective conditions and assigning an ID number to each plant selected; analyzing the T1 plant and recording mutant traits in a database, wherein the database record is linked to the ID number; collecting T2 seed from the T1 plant and assigning an ID number to the T2 seed which is linked to the ID number of the T1 plant; growing T2 plants from the T2 seed; analyzing T2 mutant traits and recording them in the database those traits not observed in the T1 plant, wherein the records for T1 and T2 plants are associated. Claim 1 further limits the mutant traits to be morphological phenotypes. Claim 15 limits the recording of mutant traits to recordation using

predefined vocabulary. Claim 16 limits the collection of T2 seed to further comprise distribution of seed into a plurality of containers for storage under conditions that allow long-term recovery of seeds. Claim 20 limits the method of claim 16 to one wherein essentially every gene in the genome of the plant is mutated such that a library of seeds representing saturation of the plant genome is generated and stored.

BRIGGS teaches a method of analyzing plant traits across multiple generations by making insertions into the genome of a plant (T0) using an insertional mutagen, crossing this plant with a wild-type plant to produce progeny (F_1 = T1), collecting seed from the T1 generation, growing plants produced from those seeds (F_2 = T2), and comparing the phenotype of T2 plants with that of T1 plants (col. 3, line 67-col. 4, line 14). BRIGGS teaches that his analysis includes identification of a phenotype which differs from wild-type (i.e. parent) traits (col. 8, lines 40-46), and teaches indexing F_1 genomic information to F2 progeny (col. 14, lines 1-6). BRIGGS further teaches genetic analysis of transformed T1 plants (col. 6, lines 12-42) and morphological analysis of plants (col. 8, lines 56-59). BRIGGS teaches that F2 seed may be collected and stored for extended periods of time (col. 4, lines 36-42). BRIGGS does not specifically teach recording data in an electronic database.

JOHNSON teaches databases for use in plant breeding wherein phenotypic traits and genotypes are recorded and linked to each other (col. 4, lines 49-68).

It would have been obvious to one of ordinary skill in the art at the time of invention to have recorded the genetic and phenotypic information and indexing of BRIGGS in an electronic database using a predefined vocabulary, as taught by JOHNSON, where the motivation would have been to facilitate evaluation of phenotypic traits in conjunction with genotypic data in a method for breeding plants, as taught by JOHNSON (abstract and col. 4, lines 56-64).

Claims 5-6 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over BRIGGS et al. (IDS ref: US 6,300,542, filed 6/17/1994) in view of JOHNSON et al. (US 6,455,758, filed 7/13/99) as applied to claims 1, 10, 15-16 and 20, and further in view of TISSIER et al. (Plant Cell (10/1999) vol. 11, pp. 1841-1852) and SPEULMAN et al. (Plant Cell (10/1999) vol. 11, pp. 1853-1866).

The claims recite a method of multigenerational plant analysis by insertional mutagenesis, as set forth above. Claim 5 limits the plant to Arabidopsis, tomato, or rice. Claim 6 limits the insertional mutagen to encode a selectable marker comprising antibiotic or herbicide resistance. Claim 20 limits the plant to be Arabidopsis.

BRIGGS in view of JOHNSON make obvious a method of multigenerational plant analysis using insertional mutagenesis, as set forth above. BRIGGS teaches that his method allows all members of a gene family to be disrupted (col. 9, lines 24-30), but does not specifically teach mutation of "essentially every" gene of a genome. Neither BRIGGS nor JOHNSON teaches insertional mutagenesis of Arabidopsis, tomato, or rice, or an antibiotic or herbicide resistance marker.

TISSIER teaches insertional mutagenesis of Arabidopsis using a transposable enhancer element from corn in T-DNA inserts (p. 1841, abstract) in a method similar to that of BRIGGS (see p. 1844, Figure 3). TISSIER further teaches use of herbicide-resistance markers (pp. 1842-1844), and teaches that his transposon-tagging system can be used for genome-wide coverage (p. 1848).

SPEULMAN teaches a method similar to that of TISSIER and specifically teaches genome saturation (p. 1861). SPEULMAN also teaches use of an antibiotic-resistance marker (p. 1863).

It would have been obvious to one of ordinary skill in the art to have used the method of BRIGGS and JOHNSON to have analyzed Arabidopsis by insertional mutagenesis across its entire genome and by using herbicide-resistance markers, as taught by TISSIER and SPEULMAN, where the motivation would have been to characterize sequences of a model organism for comparison with other fully sequenced organisms, as taught by SPEULMAN (p. 1853). It would further have been obvious to have used the selectable markers of TISSIER and/or SPEULMAN in the method of BRIGGS and JOHNSON where the motivation would have been to allow plants to be screened on soil, as taught by TISSIER (p. 1842). One skilled in the art would reasonably have expected success in using the method of BRIGGS and JOHNSON to analyze Arabidopsis because TISSIER, SPEULMAN and BRIGGS teach similar methods for analyzing insertional mutations in plants and both TISSIER and SPEULMAN specifically teach that Arabidopsis may be mutagenized using elements from transposons similar to those used by BRIGGS.

Claims 2-3, 9, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over BRIGGS et al. (IDS ref: US 6,300,542, filed 6/17/1994) in view of JOHNSON et al. (US 6,455,758, filed 7/13/99), TISSIER et al. (Plant Cell (10/1999) vol. 11, pp. 1841-1852) and SPEULMAN et al. (Plant Cell (10/1999) vol. 11, pp. 1853-1866) as applied to claims 1, 5-6, 10, 15-16 and 20-21, and further in view of NEFF et al. (US 6,534,313, filed 3/16/00).

The claims recite a method of multigenerational plant analysis by insertional mutagenesis in Arabidopsis, as set forth above. Claim 2 limits the insertional mutagen to an activation tagging vector. Claim 3 limits the activation tagging vector to one from a recited list. Claim 9 limits the step of recording mutant traits to include obtaining a digital image of the plants and recording the image in the database. Claim 22 limits the method of claim 1 to identification

of a dominant mutant trait by performing a hybrid cross by pollinating a wild-type plant with pollen from a T2 plant with a specific mutant trait, growing F1 plants from the hybrid cross, and identifying an F1 plant with the mutant trait. Claim 23 limits the method of claim 1 to identify a candidate gene responsible for a mutant trait by rescuing DNA flanking the insertional mutagen from a T1 or later generation plant, identifying a candidate gene from the rescued DNA, and identifying a candidate gene that is overexpressed in the transformed plant. Claim 24 limits the insertional mutagen of claim 23 to be an enhancer, the mutant trait to be dominant, and limits the method to further comprise preparing a heterologous gene construct comprising the enhancer, generating a transformed plant that is the same species as the T0 plant, generating and identifying transformed progeny that display the dominant mutant trait. Claim 25 limits the method of claim 24 to further comprise transforming a plant of a different species that the T0 plant, and generating and identifying transformed progeny that display the dominant mutant trait.

BRIGGS, JOHNSON, SPEULMAN and TISSIER make obvious a method of multigenerational plant analysis wherein Arabidopsis is subjected to insertional mutagenesis using T-DNA and an enhancer element. TISSIER further teaches that his insertional vector comprises a cauliflower mosaic virus (CaMV) promoter (p. 1842), but does not teach use of one of the specific enhancers recited in claim 3.

NEFF teaches a method of multigenerational plant analysis similar to that of BRIGGS and TISSIER wherein Arabidopsis plants are transformed using T-DNA with enhancer elements from cauliflower mosaic virus, and teaches that this mutation can be used to tag genes and identify dominant mutations (col. 3, lines 13-43 and col. 45, line 55-col. 46, line 7). NEFF teaches analysis of T2 plants by digital imaging (col. 48, lines 55-59). NEFF teaches cross-pollination (col. 30, lines 23-28), teaches isolation (rescue) of tagged genes from T3

heterozygotes which result in a mutant phenotype by over-expression (col. 38, lines 12-34), and teaches transformation of plants from a different species (col. 41, lines 38-62 and col. 50, line 58-col. 52, line 3).

It would have been obvious to one of ordinary skill in the art at the time of invention to have combined the teachings of NEFF with those of BRIGGS, JOHNSON, SPEULMAN and TISSIER to transform and analyze Arabidopsis and other plants using a T-DNA with a CaMV 35S enhancer where the motivation would have been to specifically target gain-of-function mutations and to analyze the activity of "discovered" genes in different plants, both as taught by NEFF (col. 3, lines 36-42 and col. 41, lines 38-62).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over unpatentable over BRIGGS et al. (IDS ref: US 6,300,542, filed 6/17/1994) in view of JOHNSON et al. (US 6,455,758, filed 7/13/99), TISSIER et al. (Plant Cell (10/1999) vol. 11, pp. 1841-1852), SPEULMAN et al. (Plant Cell (10/1999) vol. 11, pp. 1853-1866) and NEFF et al. (US 6,534,313, filed 3/16/00) as applied to claims 1-3, 5-6, 9-10, 15-16 and 20-25 above, and further in view of DEY et al. (Transgenics (1999) vol. 3 (1), pp. 61-70).

The claims recite a method of mutigenerational plant trait analysis and database management, as set forth above. Claim 4 limits the activation tagging vector to a mirabilis mosaic virus enhancer.

BRIGGS, JOHNSON, TISSIER, SPEULMAN and NEFF make obvious a method of mutigenerational plant trait analysis wherein Arabidopsis plants are transformed with a cauliflower mosaic virus (CaMV) enhancer, as set forth above. None of BRIGGS, JOHNSON, TISSIER or NEFF teach a mirabilis mosaic virus (MMV) enhancer.

DEY teaches transformation of plants with enhancer elements from an MMV promoter (abstract).

It would have been obvious to have used an MMV enhancer domain, as taught by DEY, as the enhancer element in the method of BRIGGS, JOHNSON, TISSIER, SPEULMAN and NEFF where the motivation would have been to use an enhancer element which is useful for high level expression. Use of an MMV enhancer taught by DEY would have been considered an improvement over a CaMV enhancer in a method of transforming plants as DEY teaches that a construct comprising MMV enhancer elements is more active than a construct comprising a CaMV enhancer (abstract).

Claims 7, 11, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over BRIGGS et al. (IDS ref: US 6,300,542, filed 6/17/1994) in view of JOHNSON et al. (US 6,455,758, filed 7/13/99), TISSIER et al. (Plant Cell (10/1999) vol. 11, pp. 1841-1852), SPEULMAN et al. (Plant Cell (10/1999) vol. 11, pp. 1853-1866) and NEFF et al. (US 6,534,313, filed 3/16/00) as applied to claims 1-3, 5-6, 9-10, 15-16 and 20-25 above, and further in view of BHIDE et al. (US 6,150,158, filed 10/15/1998).

The claims recite a method of mutigenerational plant trait analysis and database management, as set forth above. Claim 7 limits the method to further comprise, before the step of assigning T1 ID numbers, the steps of transplanting transformed plants into wells of a multiwell plate wherein each perimeter well contains a plant and a central well contains a barcode; wherein the assigned ID numbers of the T1 plants derives from the barcode and relative position of the plants. Claim 11 limits the analysis of mutant traits to a directed screen for altered resistance to an herbicide. Claim 18 limits the method of claim 1 to further include steps of querying a database for a specific mutant trait previously recorded, obtaining T2 seed

associated with the queried trait, performing a directed screen on the seeds or on plants grown from the obtained seed, entering the results of the screen into the database. Claim 19 limits the mutant trait of claim 18 to be a morphological phenotype.

BRIGGS, JOHNSON, TISSIER, SPEULMAN and NEFF make obvious a method of mutigenerational plant trait analysis wherein BRIGGS specifically teaches indexing F2 plant traits to F1 traits, as set forth above. TISSIER teaches assignment of ID numbers to plants and correlation of traits with those numbers (See Tables 1 and 2 on pp. 1843-4). NEFF teaches directed screening for altered resistance to plant pathogens of various types (col. 18), JOHNSON teaches that a particular trait of interest to select for may be disease (pathogen) resistance (col. 8, lines 50-55), and evaluation (querying) of a database for a particular mutant trait (col's 9-10). None of BRIGGS, JOHNSON, TISSIER, SPEULMAN or NEFF specifically teaches a directed screen for altered herbicide resistance. JOHNSON teaches growing individual plants in lattice blocks and use of machines to plant (col. 24, line 64-col. 25, line 21), but none of BRIGGS, JOHNSON, TISSIER, SPEULMAN or NEFF teaches transplanting transformed plants into wells of a multiwell plate nor use of a barcode.

BHIDE teaches growing plants, specifically Arabidopsis, in individual wells of microtiter plates and teaches directed screens for herbicide resistance on plants grown in such plates (col. 25, line 6-col. 27, line 9). BHIDE further teaches that his plates may be identified with barcodes (col. 16, lines 26-32).

It would have been obvious to one of ordinary skill in the art at the time of invention to have transplanted seedlings/new plants in the method of BRIGGS, JOHNSON, TISSIER, SPEULMAN and NEFF in individual wells of a multiwell plate, identified by barcode, in any pattern desired, as taught by BHIDE, where the motivation would have been to automate growth and analysis such that high-throughput screening of whole plants (e.g. resistance to an

herbicide) may be accomplished with less space, labor, and test compound, as taught by BHIDE (abstract), and where JOHNSON teaches that growing plants in a pattern and use of automation is desirable. It would further have been obvious to have screened for mutant traits related to altered resistance to an herbicide, as taught by BHIDE, in the method of BRIGGS, JOHNSON, TISSIER and NEFF, where the motivation would have been to find mutants with altered resistance to a pathogen (i.e. plant toxin), as taught by JOHNSON, wherein herbicides are known to be plant toxins, and where BHIDE teaches that knowledge of herbicidal resistance is known to be of interest in agricultural production (col. 1, lines 15-35). One skilled in the art would reasonably have expected success in growing transplanted seedlings in the method of BRIGGS, JOHNSON, TISSIER, SPEULMAN and NEFF in the multiwell plates of BHIDE, and in performing directed screens for herbicide resistance on such seedlings, because BHIDE teaches that seedlings can be grown and screened in his plates.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over BRIGGS et al. (IDS ref: US 6,300,542, filed 6/17/1994) in view of JOHNSON et al. (US 6,455,758, filed 7/13/99), TISSIER et al. (Plant Cell (10/1999) vol. 11, pp. 1841-1852), SPEULMAN et al. (Plant Cell (10/1999) vol. 11, pp. 1853-1866), NEFF et al. (US 6,534,313, filed 3/16/00) and BHIDE et al. (US 6,150,158, filed 10/15/1998) as applied to claims 1-3, 5-7, 9-11, 15-16, and 18-25 above, and further in view of WILLIAMES (AU 9516254).

The claims recite a method of mutigenerational plant trait analysis and database management, wherein plants are grown in a multiwell plate identified by a barcode, as set forth above. Claim 8 limits the recording of mutant traits of claim 7 to steps of using a hand-held electronic data entry device equipped with a barcode scanner.

BRIGGS, JOHNSON, TISSIER, SPEULMAN, NEFF and BHIDE make obvious a method of mutigenerational plant trait analysis and database management, wherein plants are grown in a multiwell plate identified by a barcode, as set forth above. None of BRIGGS, JOHNSON, TISSIER, SPEULMAN, NEFF and BHIDE specifically teach a hand-held barcode scanner.

WILLIAMES teaches monitoring growth of seedlings with a bar code system and use of a hand-held barcode scanner (abstract).

It would have been obvious to one of ordinary skill in the art at the time of invention to have used a hand-held barcode scanner, as taught by WILLIAMES, to monitor growth and other traits of seedlings in the method of BRIGGS, JOHNSON, TISSIER, SPEULMAN, NEFF and BHIDE, where the motivation would have been to facilitate automation and seedling growth and handling, as taught by WILLIAMES, and where automation is taught to be desirable by both JOHNSON and BHIDE.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over BRIGGS et al. (IDS ref: US 6,300,542, filed 6/17/1994) in view of JOHNSON et al. (US 6,455,758, filed 7/13/99), TISSIER et al. (Plant Cell (10/1999) vol. 11, pp. 1841-1852), SPEULMAN et al. (Plant Cell (10/1999) vol. 11, pp. 1853-1866), NEFF et al. (US 6,534,313, filed 3/16/00) and BHIDE et al. (US 6,150,158, filed 10/15/1998) as applied to claims 1-3, 5-7, 9-11, 15-16, and 18-25 above, and further in view of SANDVIK et al. (US 5,664,402)

The claims recite a method of mutigenerational plant trait analysis and database management, wherein plants are grown in a multiwell plate identified by a barcode, as set forth above. Claim 17 limits the storage containers of claim 16 to comprise a barcode including the T2 ID.

BRIGGS, JOHNSON, TISSIER, SPEULMAN, NEFF and BHIDE make obvious a method of mutigenerational plant trait analysis and database management, wherein plants are grown in a multiwell plate identified by a barcode, and wherein seed is collected into multiple containers for long-term storage, as set forth above. None of BRIGGS, JOHNSON, TISSIER, NEFF, SPEULMAN or BHIDE teaches barcoding seed storage containers.

SANDVIK teaches collection of seeds from plants wherein the seeds are distributed into multiple containers, identified by barcode (col. 5, lines 6-12), and processed for storage (abstract).

It would have been obvious to one of ordinary skill in the art at the time of invention to have stored seeds in containers identified by barcodes, as taught by SANDVIK, in the method of BRIGGS, JOHNSON, TISSIER, SPEULMAN, NEFF and BHIDE where the motivation would have been to identify the origin of the seeds in each container, as taught by SANDVIK and suggested by the separate storage of BRIGGS (col. 4, lines 36-41).

Response to Arguments

Applicant's arguments filed 6/5/06 have been fully considered but they are not persuasive. In response to the argument that the prior art does not teach recessive mutation, it is noted that none of the pending claims limit any mutations to be recessive. In fact, pending claims 24-25 explicitly limit the mutation to be a DOMINANT one, therefore this argument is not persuasive, and is confusing specifically in light of claims 24-25.

Applicants other arguments with regard to "insertional recessive mutagens" are moot as rejections with regard to this term are hereby withdrawn in view of the claim amendments filed 6/5/06.

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marjorie A. Moran whose telephone number is (571) 272-0720. The examiner can normally be reached on Monday-Friday; 6 am-2:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571)272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marjorie A. Moran
Primary Examiner
Art Unit 1631

Marjorie A Moran
8/14/06